Aditya Ved

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Motivated and results-driven Mathematics and Computer Science student at UIUC, adept at leveraging analytical thinking, comprehensive programming skills, and experience with AI/ML and Full Stack Development to create innovative software solutions. Seeking to leverage proficiency with data structures, mathematical principles, and hands-on experience in software development to contribute effectively as a software engineer.

Quick learner, continuously striving to build technical expertise in a professional environment.

EDUCATION

University of Illinois Urbana-Champaign 4.0 GPA, Dean's List, Bachelor of Science in Mathematics and Computer Science	Urbana-Champaign, IL Aug. 2023 – May 2027
Dougherty Valley High School 4.6/4.0 GPA, 1530 SAT (800 Math, 730 R/W), National Merit Commendation	San Ramon, CA <i>Aug.</i> 2019 – May 2023
Experience	

Software Engineer, Research Assistant

Jan 2024 - Current

Illinois Mathematics Lab

- Research Assistant to Professor Igor Mineyev, researching innovative solutions to popularize and disprove Kaplansky's Zero Divisor and Unit Conjecture, popular topics in modern **Ring Theory** and **Topology**.
- Used **ReactJS** with custom **ReactFlow** components to develop a web-based game "Color Taiko", **Apache Cordova** to package directories into a mobile compatible version
- "ColorTaiko!" is a crowd sourcing method to finding valid counter examples to Kaplansky's conjecture

Autonomous Navigation Engineer

Sept 2023 - Dec 2023

Illinois Robotics In Space (IRIS)

- Integrated ROS2, RTAB-Maps, Nav2, Gazebo, Python to build an autonomous navigation system for a lunar rover
- Completed lunar rover to be submitted to the NASA Lunabotics competition at the Kennedy Space Center, FL

Personal Projects and Technical Skills

Real Time Sign Language Recognition | Python, TensorFlow, OpenCV, ReactJS, IBM Cloud

Summer 2024

- Custom TensorFlow deep learning model to detect sign language
- OpenCV to allow real time webcam detections
- TensorflowJS model hosted with IBM Cloud Object Storage for public use
- ReactJS responsive frontend
- Deployed with IBM Cloud Code Engine
- Website Link: https://sign-lang-recog.1jplb85vqagb.us-east.codeengine.appdomain.cloud/

CRUD User Management Software | NodeJS, Express, MongoDB, EJS, Bootstrap, AWS Cloud Sum:

Summer 2024

- Full stack NodeJS user management portal with CRUD capabilities
- Custom built RESTful API with Express, Mongoose, and MongoDB
- Fully responsive frontend with **EJS** and **Bootstrap**
- Deployed with AWS EC2 instance
- Website Link: https://aditya-ved-user-system.com/

Languages: C++, Java, Python, JavaScript, HTML/CSS, SQL, Latex

Frameworks/Libraries: OpenAI API, LangChain, TensorFlow, Google Firebase, MongoDB, React, Streamlit

Developer Tools: Git, LMStudio, Docker, Andriod Studio, VS Code, PyCharm, Eclipse

Design Tools: Adobe Suite, ProCreate, CSS Web-Design

Mathematical Skills: Graph Theory, Number Theory, Discrete Structures, Calculus, Linear Algebra

Leadership: Bell Leadership Award Recipient, Wildcat Leadership Award Recipient

Communication: Excellent interpersonal communication skills enable me to collaborate with clients, stakeholders, and cross-functional teams to deliver high-quality results.